This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

C
Colburn

MEMOIR

OF

WARREN COLBURN.

S. R. 139

Theological School
IN
HARVARD UNIVERSITY.

BEQUEST OF
JAMES WALKER, D.D.

RECEIVED JUNE 19, 1875.

H Wright Smith Sc.

W. Colburn

MEMOIR

H. Wright Smith Sc.

W. Colburn

MEMOIR

J. C. Calhoun

MEMOIR

OF

WARREN COLBURN,

WRITTEN FOR THE

AMERICAN JOURNAL OF EDUCATION.

BY

THEODORE EDSON, D. D.

DIVINITY SCHOOL
LIBRARY.
HARVARD UNIVERSITY

BOSTON.
BROWN, TAGGARD & CHASE.
M.DCCC.LVI.

THIS Memoir was prepared by the Rev. Dr. EDSON, of Lowell, for the "American Journal of Education," at the request of the editor, HENRY BARNARD, LL. D., and appeared in the September number.

BOSTON, November, 1856.

WARREN COLBURN

THE Colburns were among the primitive settlers of Dedham, Mass. Nathaniel Colburn, the common ancestor, was a resident of the town as early as the year 1639, and was one of the Selectmen, from 1651, five consecutive years. He had eleven children, five sons and six daughters. All his sons married and settled in Dedham, and had children.

Samuel Colburn was the paternal grandfather of Warren. His wife was Marcy Dean. They lived together to an advanced age, and had twelve children. The last part of their lives was cotemporary with Warren, and they spent their latter days and died in his father's family. One of their sons was Lieut. Lewis Colburn, who served in the Revolutionary War, was a volunteer from Dedham for the suppression of the Shay's rebellion, and died, June 1, 1843, at the age of ninety-one.

Richard Colburn, the father of Warren, married Joanna Eaton, whose mother and his maternal grandmother was Mary Eaton, by second marriage Mary Dean; who was very favorably noticed by her pastor, the Rev. Dr. Lamson, in a printed funeral discourse, preached the Sunday after her interment. He says: "She was of old Dedham ancestry. She was a communicant of this church seventy-eight years; having been admitted August 30, 1772. She had naturally a strong mind, and clear perceptions; and, her faculties she did not suffer to rust out; and, there was but little failure of them to the last. Some indications of an infirm memory began to manifest themselves, but into the period of second childhood she never fell." She died, October 13th, 1850, in the ninety-ninth year of her age.

Warren, the first-born child of Richard Colburn and Joanna (Eaton) Colburn, was born the day his mother was twenty years of age, March 1st, 1793, in the part of Dedham called Pond Plain. Sometime in the year 1794 or 5, the family moved into Clapboardtrees parish, where they resided about six years. Richard Colburn, being the youngest of his father's large family, had his parents, Samuel and Marcy Colburn, in his own family from the time he became a house-

keeper till their deaths. After a short residence at High Rock, the family moved, in 1800 or 1, to Milford. The grandparents were exceedingly fond of Warren, and he was affectionate and obedient to them. At the age of four, he was sent to a Summer District School, and had care and charge of his sister, about two years old. The father was a farmer, and the son was early put to do a boy's work on the farm. At Milford, he began to attend the Winter District Schools while they kept. He was esteemed a good and truthful boy, and was never addicted to profane or foul language. His grandmother died suddenly at Milford, about the year 1802. His grandfather lived about three years after, and died in 1805, at the age of ninety-one years, when Warren was about twelve. From Milford, the family moved, about the year 1806, to Uxbridge. Here, as before, his occupation was on the farm, and his education chiefly what was afforded in the winter terms of the Common Schools, wherein his taste and expertness in arithmetic was manifest. This talent was discovered and encouraged by his father. Mr. Gideon Alby, a poor and infirm man, good at figures and used to teaching, was taken into the family for the purpose of giving Warren instruction in cyphering during the fall and winter evenings. He was already aspiring to a more extensive scope for enterprise than the farm presented. In about 1810, the family, on his account, moved to Pawtucket, R. I, where he was put to labor and learn something of machinery with Mr. John Fields, a machinist. There they lived about a year, and moved thence to Canton, 1812. They resided in the vicinity of the factory, where he found employment on machinery, and others of the children in connection with the factory. He remained at his occupation when the family moved to a farm near the line of Dedham, toward Walpole, and, not long after, to Webb's Factory, in the border of Walpole. In about 1813, during the war with England, and while he was in Canton, he learned to weave of Capt. Williams, a Norwegian, whose wife was an English lady. He went to Plymouth, in about 1814, where he wrought in machinery, which, being in the war time, was then rather a profitable as well as a rapidly extending business. From Plymouth he went to Easton, in the early part of 1815, still working in the same line of engagement at the factory in that place, and continued there some months after the declaration of peace. In the summer of this year, and, at the age of twenty-two and a half years, he began to fit for college. The Rev. Dr. Richmond, for about a quarter of a century the settled minister of Stoughton, discharged also from time to time the office of teacher, and fitted pupils for college. Under his tuition young Colburn placed himself. A fellow-pupil was

Henry G. Wheaton, son of Daniel Wheaton, Esq., of Norton, a gentleman of wealth and of education. The two pupils were soon friends, and the friend of the son was readily befriended by the father, who kindly arranged with Colburn to lend him such sums of money as he might have occasion to borrow for defraying his college expenses. It is said to have stimulated the son to the completion of his preparatory studies, so that the two might enter together, and be room-mates in college. Says Mr. Wheaton: "We lived together in the same room for about five years; at Mr. Richmond's, fitting for college, about one year, and four years in college; the most of the time engaged substantially in the same studies. Of course, being class-mates and occupying the same room, we were intimately acquainted, and met many times after leaving college, particularly while he was in Boston."

His college life, at this late period, will be best portrayed by such recollections of his class-mates as can now be gathered. Soon after his decease, there appeared an anonymous newspaper article attributed to Dr. Edward G. Davis, who was, at the time it was written, a practising physician in Boston, of respectable connections and standing, and who died in Philadelphia in less than six years afterwards, and before completing his thirty-seventh year. If any slight discrepancies or repetitions are discovered in the different sketches, the portraiture, as a whole, will not, it is hoped, be considered the less valuable. The following is the article of Dr. Davis.

REMINISCENCES OF A CLASS-MATE.

Mr. Warren Colburn, whose death was recently announced in the papers, passed the years 1817 [1816] to 20 at Harvard College. It was there that he developed that fondness for the higher branches of mathematical studies, and that talent for analysis, which continued so remarkable in his after life. It is the impression of the writer that he entered college only with the usual preparatory knowledge in this branch; but, while there, he made himself master of the calculus, and read through a considerable part of the great work of Laplace. He commenced his collegiate course at the comparatively late age of 24, when both his mind and his character had reached a degree of maturity much exceeding that of the great proportion of his fellow-students. It was only by slow degrees, however, that his talents and his virtues made their due impression on the minds of those around him. With a sensitiveness almost allied to timidity, he shrunk from familiarity even with those with whom he most constantly held intercourse, and there are many who can remember, when the jest and the laugh went round, how little Colburn partook in the boisterous merriment. There was in him a peculiar diffidence about obtruding himself or his thoughts upon others; a disposition to stand back, and, only when strongly urged, to join in the scheme which formed the attraction of the moment. Yet, was he possessed of great, nay, of peculiar kindness of feeling; no angry word ever escaped his lips, no expression that breathed of aught but benevolence and good will. A little circumstance, but one which is no doubt familiar to the recollection of all who knew him at the time, and which seems intimately interwoven with the general texture of his character, was a hesitation in speaking, slight indeed, but sufficient to make it an effort to him to express himself, and to call up an evident embarrassment when he attempted it. Many years after, when the writer again saw him, this hesitation of manner

appeared to be unaltered. It was no doubt one of the causes which rendered him shy of engaging in general conversation, nor did he, in conversing, always do justice to the vigor and force of his own thoughts. To this diffidence and slowness of manner was it owing that a just estimate of his powers was formed by only a very small proportion of his early friends. It was, indeed, known that he pursued his mathematical investigations with great ardor and zeal; and, his acquaintance with these subjects were, in some degree, made evident in his recitations. But, the accuracy with which his exercises in the languages were prepared, and the foundation he was laying in the science of philology, were suspected only by a few of the more discerning members of his class. Yet, it was a fact, that he studied languages with no less thoroughness than the abstract sciences; and, the involved and difficult passages in Aristotle were analyzed by him with neither less care nor less success than the propositions of Newton and the formulas of Laplace. This circumstance was little known at the time, but may readily be believed by those who have noticed with what success his mind has recently been directed into similar investigations, resulting in the production of an elementary work on grammar; a subject to which it would hardly have been anticipated that a mind like his would have directed its energies.

His great and most interesting project, that of improving the system of elementary instruction in mathematical science, appears to have occurred to him during the latter part of his college life, and was the subject of painful thought, many years before his first work made its appearance. It required, indeed, no small energy of mind thus to break through the trammels of early education, and strike out a new path; for, Colburn, like others, had been brought up under a system the reverse of that which he now undertook to mature and introduce. This is not the occasion, nor is it the writer's purpose to attempt a criticism on the system itself. The author may have followed out a single principle more closely, and applied it more extensively, than the interests of education required. But, such was the readiness with which it was adopted, that, in the course of a few years, the appearance of these little books seemed to have revolutionized the mode of teaching elementary mathematics in the schools of New England. Various modifications have since been introduced into his plan, for which, whether improvements or otherwise, little credit can be claimed on the score of originality; and, it may with safety be asserted that, whatever in the present mode of teaching the science of numbers in our schools distinguishes it from that in use twenty years since, is mainly to be attributed to his publications.

In the constitution of Mr. Colburn's mind, many circumstances were peculiar. His mental operations were not rapid, and it was only by great patience and long-continued thought that he achieved his objects. This peculiarity, which was joined with an uncommon power of abstraction, he possessed in common with some of the most gifted minds which the world has produced. Newton, himself, said that it was only by patient reflection that he had arrived at his great results, and not by sudden or rapid flights. In Colburn this slowness and patience of investigation were leading traits. It was not his habit, perhaps not within his power, to arrive at rapid conclusions on any subject. If this tended, as probably it did, to impart to his conversation that hesitating manner which I have mentioned; if it made him appear more absent and thoughtful than quite befitted the animation of social intercourse, it yet had its advantages. His conclusions, reached slowly and painfully, were established on a solid basis, and the silent progress of time, that great test of truth, has served but to verify and confirm them.

Such, imperfectly stated, are the writer's college recollections of Mr. Colburn. He has little to add to them, derived from a knowledge of his subsequent career. He soon passed into a station in life which he was well qualified to fill, and the duties of which he conscientiously and ably performed. More extensive intercourse with the world served, no doubt, to divest him of some prejudices, and to improve his qualifications for social life; but, in seeing him occasionally during the last thirteen years, the writer found the exquisite simplicity of his manner still retained, and his habits of thought appeared to have experienced very little alteration. From the same mild, gentle eye beamed the same benevolence of expression, and the friend and associate of former days stood again confessed. Alas! that the recollection of the past can never more be refreshed by another meeting, that the form which is portrayed so vividly in the fancy of surviving friends, has passed from earth, and will be no more among men. But, while the present

generation remains, will that form be cherished in grateful hearts; and, even when all who knew his worth shall have departed, his name will be preserved, in connection with works, at once the evidence of the energy of his mind and of the benevolence which directed its application. He has performed a good work on earth, which shall not be taken from him, even when his remains, now slumbering beneath it, shall have crumbled to dust. Though dead, he will yet speak to those for whose instruction he zealously labored, while living; and, so long as education asserts its claims to respect among us, the name of Colburn shall be numbered among a people's benefactors.

The Rev. Benjamin Kent, of Roxbury, writes, June, 1856: —

Being older than those who entered college with us, and of nearly the same age, we soon became intimate associates. In our Junior year, we had a "part" together,—the translation of a Greek dialogue into English. I can, mentally, see the room, and the bland and loving countenance he wore when we were engaged together in our work: and, during our whole college life, whatever may be true of others, I never heard an expression of any feeling toward him than that of admiration for his dispositions, counsels, and intellectual gifts. It may, indeed, be said that he brought with him to college a decided taste for mathematics. We none of us ever thought of approaching near to him in this science. He early studied and made himself perfectly familiar with the French language, with a distinct view to mastering every French mathematician of promise which he had not met with or seen referred to. In saying this, however, I do not mean to say that he did not excel in every other department of a college education. He always ranked among the first scholars of his class in every thing but public speaking. "Oratory!" he used to say, with a soul-prompted smile and brilliancy of eye, "I am no orator, as Brutus is;" and we all lamented that his vast erudition, for so young a man, could not be freely communicated to a promiscuous audience, or sometimes even in the recitation room, in consequence of his modesty and a slight impediment in utterance. To sum up what I learned in the course of intimacy and friendship, which was never for a moment interrupted, I need only say, what I do say with the deepest sincerity, that he never gave evidence of carelessness in a recitation room, of unkindness to any one who applied to him for sympathy or counsel, or of envy, jealousy, or self-assurance, when a few others were selected to appear before audiences in higher parts than those assigned to him. Taking our studies altogether, I am confident that he had not his superior if his equal, as a scholar, gentleman, and Christian, in the class of which we were members.

The Rev. E. B. Hall, D. D., of Providence, May, 1856, writes: —

I have no memorial of him except those of the mind and the heart; but, they are very precious. His image and whole character stand before me as entire, definite, and life-like as those of any early friend, departed or living. Some of my associates in college have passed almost wholly from my memory; but, Colburn is as if I had seen him yesterday, or were at this moment listening to his slow utterance, but pleasant voice, and clear thoughts, in the recitation room, or the private interview. Though not peculiarly intimate, he being much my senior, and wholly unknown to me previously, I knew him enough, and was with him enough, to form the highest opinion of his character as a man of stern integrity, transparent simplicity, freedom from all guile or pretence, and invincible moral courage. I doubt if any force could have driven,—I am sure no lure could have enticed him into a single mean action or false word. There was no one in my whole college acquaintance to whom I should have gone more readily for counsel in any emergency, or to whose care I would more willingly have committed any trust.

Colburn was not a splendid scholar, nor able to do full justice, either in speech or with the pen, to his own clear perceptions and actual knowledge. This was owing to a natural diffidence, small power of expression, and, as I suppose a want of early advantages. But, in clearness of thought, soundness of judgment, the habit of discrimination, and, above all, mathematical genius, he was surpassed by few. His position in the class was always respectable, and, in the end, high. He had as little ordinary ambition as any mortal could have. He loved study for its own sake, not for appearance or immediate effect. He was faithful to every duty, and, by a uniformly consistent deportment, and quiet, straightforward course, won

the confidence of all his teachers, and the respect of all his fellow pupils; while some were bound to him as by fraternal affection.

After our college life, I visited him once or twice in Lowell, and saw manifest tokens of ripened character and advancing intellect. He seemed to me to give promise of great usefulness, if not of high distinction. His death affected me as a personal as well as a public loss. A good impression of his features hangs in my study, but a better one in my heart. I should be sorry to believe that I shall never meet him again.

Mr. Sparks, ex-President of Harvard College, says, 1856: —

He was a student in college during about a year and a half while I was a tutor. I left Cambridge in the early part of his Junior year, and I do not remember to have seen him afterwards. All my recollections of him, as a student, in regard to his character, deportment, and scholarship, are of the most favorable kind. He held a high rank in his class, particularly in the mathematical department, in which I was an instructor. I was not then aware of his peculiar and remarkable gifts in that branch of science which he subsequently manifested.

The Rev. Dr. Gannett, under date of January, 1856, writes: —

Mr. Colburn was older than most of his class-mates, and did not form intimacies with many of them. Indeed, his only very intimate friend, as I suppose, was James G. Carter, afterwards of Lancaster, who died some years since. Carter and he, after "commons," would go off together for long walks, talking, as the rest of us believed, on metaphysical and mathematical subjects, in the former of which Carter, and, in the latter, Colburn was most interested. We all respected Colburn. He was, far and far away, our first mathematical scholar, and respectable in all branches. His moral character was stainless, and, it was taken for granted that he would do right; for, we looked on him as a man, rather than as one of us lads. He was always kind in disposition, and agreeable in manners; so far, at least, as my impression of him is just; but, he did not associate very much with his class-mates, and was regarded as an honorable, studious, and exemplary person, rather than as one with whom we could be very free. He used his time faithfully, and left college, I believe, without any occurrence to mar the pleasure he must have had in recalling his course through the four years.

Dr. Palmer, of Boston, Jan, 15, 1856, writes: —

Colburn's parents being in humble life and not blessed with this world's goods, (although they were highly respected by their neighbors,) he was dependent on his own exertions for a subsistence. He was brought up to the business of a machinist, at which he labored for some years. I know not what induced him to quit his business and determine to obtain a liberal education. He was fitted for college by the Rev. Edward Richmond, D. D., of Stoughton. But, in all the studies required for admission into college, with the exception of mathematics, he was illy prepared; for, he told me himself that he was only one year in fitting; having begun to study the Latin Grammar on Commencement Day, the year before he entered. The consequence was that, in classical studies, while in college, he never shone; but, in mathematics, he was, longo intervallo, ahead of all his class-mates.

The Rev. Dr. Furness, of Philadelphia, was also of the same class, and writes, Jan. 20, 1856: —

I remember him as, by a number of years, the senior of the majority of our class. He was respected by all. Every class-mate of his will bear witness to his manly character, and to his devotion to his favorite study.

He lived, in his senior year, I think it was, in Stoughton Hall, on the west side, not far from the college bell. I recollect his chum's telling us, one day, that he missed Colburn at morning prayers, then at six o'clock; he missed him at recitation, likewise, about half an hour after, and he missed him also at breakfast, at half-past seven. He did not know what had become of him, and supposed he had gone upon an early walk, and wandered too far to return in time for breakfast. However, his chum, upon returning to his room after breakfast, opened the door

of Colburn's study, and found him standing there at his desk, lost in mathematical studies. The bell had rung out its summons three several times, but, as he said, he had not heard it. We all believed it was exactly so. He was too unpretending and simple to affect any thing.

Again, I recollect being in Prof. Farrar's recitation room. After recitation, when the first scholar of our class stopped to point out a mistake in our text-book, Prof. Farrar agreed with him that it was an error. Colburn, who happened to overhear them, (he was the only other person, beside myself, in the room,) struck in and observed that there was no mistake. I remember I knew not which most to admire, the superior acuteness of Colburn, or the candor and interest with which, without any false pride, the Professor listened to his pupil. Of his great mathematical talent who does not know.

He took his first collegiate degree with his class at the commencement, in August, 1820. In the public exercises of the occasion, his appointment was ranked an honorable one. His "part" was "On the benefit accruing to an individual from a knowledge of the Physical Sciences," which he creditably sustained. The subject was assigned to him by the Faculty; but, probably selected with some view to its adaptation to his taste and turn of thought. The following passages are given as illustrative of his habitual thoughts and purpose.

The purpose of education is to render a man happy as an individual, and agreeable, useful, and respectable, as a member of society. To do this, he ought to cultivate all the powers of his mind, and endeavor to acquire a general knowledge of every department of literature and science, and a general acquaintance with the world by habits of conversation. And, this is not inconsistent with the most intense application to a favorite pursuit.

The Physical Sciences belong to all the professions; and, not only to them, but to all men, in every situation. There is not a human being, who has not something to do with these sciences. They are the science of life. Every child, as soon as he begins to learn any thing, begins to learn the rudiments of them. But, it is the rudiments only that he learns, the abstruse principles are to be discovered by patient and diligent study.

It is true, indeed, that a very large portion of the community have neither time nor opportunity to acquire them, by their own exertions; and yet, the greatest advantage might be derived from these sciences, in the hands of this class of citizens, because they possess the means of applying them more immediately to useful purposes. The knowledge of these sciences, therefore, is to be circulated by the favored few who have the means of knowing them; and, it becomes the duty of every one who possesses the means, not only to acquire them himself, and to do what he can to improve them, but to promote the diffusion of them among mankind, and to be always ready to give any information in his power concerning them to all who may need it.

The bent of his mind is here to be plainly seen. Education was the subject to which he was chiefly inclined, and teaching was his favorite pursuit. On leaving the university, he undertook the work of teaching, and kept a select school in Boston. He already had the experience of them who, working their way through a course of college education, resort to school keeping in the winter. He had taught in Boston, in Leominster, in Canton, and, thus early practiced, he soon became an accomplished teacher. His lecture on this subject, delivered before the American Institute of Instruction, in 1830, presents a

luminous view of his own mind and experience, and is well worthy the attention of teachers.

The number of his pupils in Boston was not large at first; and, did not, at any time, exceed from about twenty-five to thirty. His friend, Mr. Carter, in a letter of 1821, writes: "I congratulate you on your success in your school. From what I hear, as well from other sources as from yourself, I apprehend that you have a pretty strong hold on the good opinion of the respectable part of the community. There are few of us so well qualified, both by nature and education, as you are for this important station in society. My prayer is that you go on and prosper; and, take that elevated rank in society which your talents, your acquirements, and your virtues so eminently qualify you to maintain."

It was while engaged in keeping this school that he produced his "First Lessons in Intellectual Arithmetic." He must have begun to make the book about the time that he commenced the school. Perhaps the work was previously conceived. It was probably put to press in the autumn of 1821. His friend, Mr. Carter, Nov. 9, speaks of it as forthcoming, and, Dec. 15, as having been received by him at Lancaster.

Mr. Batchelder, of Cambridge, states: "I remember once, in conversing with him with respect to his Arithmetic, he remarked that the pupils who were under his tuition made his arithmetic for him: that he had only to give attention to the questions they asked, and the proper answers and explanations to be given, in order to anticipate the doubts and difficulties that would arise in the minds of other pupils; and, the removal of those doubts and difficulties in the simplest manner, was the foundation of that system of instruction which his school-books were the means of introducing." His "First Lessons" was, unquestionably, the result of his own teaching. He made the book because he needed it, and because such a book was needed in the community. He had read Pestalozzi, probably, while in college. That which suited his taste, that which he deemed practicable and important, he imbibed and made his own. He has been sometimes represented as owing his fame to Pestalozzi. That in reading the account and writings of the Swiss philosopher, he derived aid and confidence in his own investigations of the general principles of education, is true. But, his indebtedness to Pestalozzi is believed to have been misunderstood and overrated.

Upon the first appearance of the "First Lessons," his friend, Mr. Carter, of Lancaster, writes, Dec. 1821: "I shall see Dr. Thayer this afternoon, and, if I succeed to my mind with him, your book will be

immediately introduced into the academy here. I shall send my copy to-day to Rev. Mr. Clarke, of Princeton, who is quite engaged in the instruction of youth. I hope he will use his influence to introduce it in his parish. I think you will do well to send a quantity of them to the book-store in this town, for sale. I need not tell you that I am more and more pleased with your book, the more I see of it. I intend all my scholars shall use it, for I am convinced they have got the substance of it to learn, however far they may be advanced." On April 12th, 1822, Mr. Carter writes: "Your little book is still doing well. The bookseller told me, a day or two since, that he had sold a great many to go out of town. You must get out another edition as soon as possible, for I think they will be very useful in the summer schools. Let me know how you progress with your larger arithmetic, and how you get on with your algebra. I feel much interested in the latter. But, I have little doubt but you will do the subject justice."

Thus the "First Lessons" worked its way gradually to notice and favor,—a book which has enjoyed a more enviable success than any other school-book ever published in this country, and the merits of which are now universally acknowledged to be equal to its success. It has been said to be "the only faultless school-book that we have." It certainly has wrought a great change in the manner of teaching arithmetic. Its system is received wherever the book is known. It has no competitors, except in the profits of sale, in the shape of imitations; and, that these have been numerous is altogether to its credit. Such a man as George B. Emerson, after twelve years' constant use of it, long ago pronounced it the most valuable school-book that has made its appearance in this country. And, Thomas Sherwin, Esq., of the Boston High School, calls it, not only the best in this country, but, the best in the world. Its use is believed to be nearly commensurate with that of the English language, and it has been translated into other tongues. It has been stated that fifty thousand copies of Colburn's First Lessons are annually used in Great Britain; and, its sale in this country is about one hundred thousand per annum. About two millions of copies have been sold since its first publication in this country.

It will be seen that the Sequel and the Algebra were parts of his original conception, in connection with the First Lessons, and were in a state of progress as early as 1822.

He continued his school about two years and a half; and, though his teaching must be pronounced successful, as well by the testimony of his pupils as by that of his book, the production of that period; yet, owing to his retiring modesty and reluctance to putting himself

forward, his financial success was but moderate. And, though teaching was his favorite science, and an engagement of which he was fond, yet, says one who had opportunity to know: "I do not think he ever intended, even if he had had the greatest success, to make teaching his ultimate employment. I think that he always had a predilection for the pursuit which he afterwards followed; and, felt that, from his early practical knowledge, added to his scientific, he was well fitted for the occupation." Visiting in the families of his pupils, he was introduced to the late Patrick T. Jackson, who, with his quick perception of the qualifications and abilities of men, soon discovered in his new acquaintance the talents and acquirements adapted to a situation which he was then seeking to fill. Mr. Jackson offered him the situation of Superintendent of the Boston Manufacturing Company, at Waltham, with a much better income than he was deriving from his school. He accepted the place without much hesitation, and went to Waltham, April, 1823.

Here he was successful in his business, was much esteemed, and made some very valuable friends. Among these, now living, is Dr. Hobbs, who still cherishes impressions of him "as a man of great simplicity of character, honest and upright in all his ways, with a moral character without spot or blemish; a liberal supporter and promoter of science and the arts, always kind to children and poor scholars that were trying to get an education, always friendly to all institutions of morality, religion, and learning, his heart full of benevolence, and his mind ever active to promote the education and well being of the rising generation."

During his college course, he kept school on two occasions in Canton, Mass. In the winter of 1818, he had for a pupil Miss T. C. Horton, at that time residing there with her mother. An affectionate and reciprocal attachment was then commenced, which, after an acquaintance of about five years, resulted in their marriage on the 28th of August, 1823, about four months after his settlement in Waltham. The connection was a happy one, and marked with a very warm and tender affection, to the freshness and fervency of which there seemed to be no abatement. As well in health as in his last and only sickness, it was the same; and, to the very close of life, it was seen to gush forth from the fullness of his heart, so long as he had the power to give it expression.

On the 18th of June, 1824, the Superintendent of the Lowell Merrimack Manufacturing Company, Mr. Ezra Worthen, died instantly, while engaged in his ordinary duties. Mr. Colburn was appointed his successor, and removed his residence to Lowell as soon as he could be

conveniently transferred from his duties in Waltham. His removal was in August, that of his family in October.

He seemed to be well aware of the responsibility of his new position, as well in a more general as in a business point of view. In his general relations to the interests of the community, he was active and enterprising. He readily perceived and appreciated the peculiar character of a manufacturing community in New England, and projected at once a scheme of lecturing, adapted to popular improvement. His plan was to present common and useful subjects in such a way as to gain attention, and in such connection with science as to enlighten and furnish the popular mind. He proposed to occupy the space between the college halls and the common schools by carrying, so far as might be found practicable, the design of the Rumford Lectures of Harvard, into the community of the actual operators of common life.

Early in the autumn of 1825, and so along through the winter, he lectured upon the Natural History of animals. With an excellent magic lantern he illustrated the classification of animals, exhibiting on the screen specimens of the several classes, of the size and color of life, and pointing out, while the animal was thus before the company, its qualities, and the characteristic distinctions of its class. He lectured upon light; intermingling with statements of some of its remarkable facts, explanations and simple illustrations of some of its familiar phenomena. In a dark room, with his well-managed instrument, he exhibited the rays, applied lenses and explained their effect, illustrated the refraction of rays by refracting them to the sight. Some curious optical illusions were exhibited and explained. The structure of the eye; the use of lenses, the telescope, the microscope, were made intelligible to uneducated operatives by his successful experiments and simple teaching. He lectured upon the seasons; and, by diagrams thrown upon the screen, and a very simple orrery, of his own construction, and a skillful adjustment of lights, he illustrated the changes of the year; and, with his plain and lucid explanations, brought the subject to the comprehension of every observer. He took up the subject of electricity, and, with the help of a machine, taught and illustrated many things, which it is of practical use to know. The phenomena of thunder and lightning were presented to the comprehension and understanding of many who, without a thorough knowledge of the science, even as then developed, gathered enough to give interest to the storm, to allay unreasonable terror, and to suggest the ways of safety.

These lectures were given in the years 1825, '26 and '27. They

were commenced, at least, from two to three years, as is believed, before the subject of Lyceums, so-called, and of Lyceum Lecturing was broached in New England. The Middlesex County Lyceum, which was among the early associations of this kind, and of which Mr. Colburn was chosen one of the Curators, was formed November 16th, 1829. He had attended a meeting of gentlemen of the county, for maturing the plan, and contributed, from his own experience, important aid to the enterprise.

In the winter of 1826, what had been called East Chelmsford was incorporated into the town of Lowell; and, at the first town-meeting, held March 6th, Mr. Colburn was chosen one of the Superintending School Committee. It was of vast consequence to make a good beginning of the public schools of the town. The duties of the Committee, by the Statutes of the Commonwealth, and under existing circumstances, were arduous and responsible. The acting members were fully aware of their position, its difficulties, and its importance, and determined to discharge the office faithfully and to the best of their ability for the interests of the schools. Though laden with other cares, they spared not the labor nor the time. When the pressure of other engagements was upon them, they repeatedly held their meetings at six o'clock in the morning. Mr. Colburn served on this Committee the first two years, and contributed freely of his wisdom and pains to the favorable beginning and good condition of the schools. In town-meetings he took upon himself to look after the appropriation of money to the schools. He was customarily on the Committee for dividing the money to the several districts; and, frequently on other Committees pertaining to the interests of the schools. In 1831, he was elected again on the General Superintending Committee, and was, at his own request, excused from serving.

While he was at Waltham, though withdrawn chiefly from the work of practical education, the subject continued to be his favorite study, and heavily taxed his leisure moments. He soon finished his second book, the "Sequel," which came out about the beginning of the year 1824, which is certainly a work of great ingenuity, which shows a great mastery of the principles of education, and which he himself considered a book of more merit and importance than the First Lessons. Of the Sequel, indeed, it may be said, not only that its true value has not, in general, been sufficiently estimated, but, that its actual influence on the use, the understanding, and popularity of the First Lessons has been appreciated only by particular observers. Whoever considers by what sort of management school-books are thrust into and out of the market, and how natural it was for book-

makers and book-publishers to feel that Colburn had received his share of profits, will easily see that the Sequel had a severer ordeal to pass through than the First Lessons, and much greater difficulty in holding the place to which, by its merits, it might be entitled.

After seven or eight years of successful experiment in the use of the First Lessons and Sequel, attempts were made in Boston, by imitations and variations, to supersede them, so that his friends applied to him to make some modification of one or both of the books, so as to obviate the objections which had been devised. Early in 1833, he directed his attention to a revision of the Sequel. He perceived that the objections most relied upon were based upon misapprehensions or misrepresentations of the distinctive characteristics of the book. He did not wish to make it an easier book, nor an essentially different book. That which he was laboring in his mind, was to make its distinct character more readily apprehended, without injuring it; contemplating also other slight amendments, in passing. That part of the labor which such a mind may work out, before putting pen to paper, except in scraps and hints, intelligible only to himself, he had already accomplished. His mind had penetrated to the result, with pretty good hope of being satisfied therewith,—had his life been spared to attain it. That the event was otherwise is much to be regretted by the friends of education.

Says Mr. Thomas Sherwin, Principal of the High School, Boston: "I regard Mr. Colburn as the great benefactor of his age, with respect to the proper development of the mathematical powers. Pestalozzi, indeed, first conceived the plan; but, Mr. Colburn realized the plan, popularized it, and rendered it capable of being applied by the humblest mediocrity. Indeed, I regard the First Lessons as the ne plus ultra of primary arithmetics. The Sequel is also a very good work; but, it needs a pretty intelligent teacher to make it eminently useful. In his Algebra, Mr. Colburn accomplished much, by rendering the study interesting, and by gradually leading the student to a knowledge of pure algebraical symbols and processes. Mr. Colburn did much to place algebra within the reach of the mass of learners. He introduced an original demonstration of the Binomial Theorem, which is a very good instance of the inductive method of reasoning. He commences with forming several powers of a binomial by multiplication. He then examines the law of the letters, also the co-efficients, and finds that the latter consist of several series of numbers, deducible the one from the other. The next step is to trace out the law of the different orders of series, show how to find any term, and the sum of any number of terms, in each series, and demonstrate the mode by

which one series, or any term of it, may be deduced from the preceding order of series. Finally, the laws thus obtained are applied to finding the co-efficients of any power of a binomial, and the usual rule for finding the successive terms is given. This investigation of series, tracing out the laws which characterize them, and the application of those laws to the Binomial Theorem, is entirely original with Mr. Colburn, and exhibits that acuteness of investigation, and that analytic character of mind for which he was distinguished."

He completed his Algebra in 1828, and, as himself remarked, he never in his life worked harder, and never accomplished more, from day to day, than he did then; when, in addition to the sedulous and faithful discharge of the duties of his place, as the Company's Superintendent, and other numerous incidental calls on his time, he was writing that work, and carrying it through the press.

It was not in one department only, but in teaching generally, that he sought and looked for the best methods. In his relation to the public schools, as one of the Superintending Committee, his attention was directed to the subjects of Reading, Grammar, and other branches. He published a series of selections from Miss Edgeworth's stories in a suitable form for reading exercises for the younger classes; in the use of which, the teachers were carefully instructed. He prefixed to each book of the series some instructions in Grammar. So that a system of Grammar for younger pupils was completed in connection with the Reading Books. These instructions were addressed to the teachers, that they, possessing their own minds with the beautiful simplicity of the system, might communicate the same, in its plainness and clearness, to their pupils. Thus, a very good notion of English Grammar was given to children, and their early proficiency therein, by this method, was scarcely less admirable than in arithmetic.

In the winter of 1828, his lectures, which, from the beginning, had been entirely free and gratuitous, were given in connection with the Middlesex Mechanic Association. He lectured upon Hydraulics, constructed an apparatus of considerable extent, exhibited several kinds of water-wheels, explained the power of water and its application as a motive agent, showed the principles of the Hydraulic Press, and gave numerous illustrations of the flow and the force of this element. He was invited to lecture in Boston on the same subject, and did so before the Mechanic's Charitable Association. He was heard by many intelligent gentlemen, who were curious to observe the practicability of presenting subjects of science to the popular mind. Although research and knowledge of his subject were satisfactorily evinced, yet, the presence of such a proportion of scientific gentlemen,

probably, somewhat disconcerted him; and, the failure of some of his experiments made him feel less at home than with a more popular audience.

His lectures, in the subsequent years, at Lowell, were many of them on the subject of Astronomy. Eclipses were lectured upon, as they occurred; and Comets, as they appeared. Says a gentleman of science: "I visited him once or twice, while he was at Lowell, and, on one occasion, assisted him in taking an observation of the sun, with his Reflecting Circle, for the purpose of taking the latitude."

In May, 1827, he was elected a fellow of the American Academy of Arts and Sciences. He was, for several years, a member of the Examining Committee for Mathematics, at Harvard College.

It was the early policy of the Manufacturing Companies to select, for Superintendents, men practically acquainted with their business. A very different policy has subsequently prevailed, that of appointing men of character and standing, perhaps of some general experience in business, but without practical knowledge of mechanics or manufacturing, and, consequently, dependent on the Overseers, whom they superintend, for such information in those departments as they have occasion for. In the one case, the Superintendent looks at the work, understands its quality, observes the Overseers, gives such instructions as are needful, and, if anything goes wrong, he is capable of knowing how and by whom it is to be corrected. In the other case, he calls together his Overseers, takes their several opinions, and makes up his mind thereupon. This is flattering to the Overseers, and may sometimes be turned to their advantage. The theory counts upon a gain by securing their influence with that of the Superintendent, in the community at large, favorable to the corporations. The arrangement may be more satisfactory to a portion of the operatives; but, whether more advantageous to the Proprietors, is by no means certain. It is like putting in the Supercargo to be master of the vessel, making him dependent on his subordinate officers for its navigation. It may do, in fair weather and plain sailing; but, it is doubtful whether the voyage be quicker made, with more economy or advantage to the owners.

Mr. Colburn was a practical mechanic, and not ignorant of manufacturing. To this he added a thorough course of classical and scientific education. With a view to all of these qualifications, he was chosen to his place. The last named may have been the occasion of a particle of jealousy. It was said, when he died, by one who had opportunity to know: "Few who have occasion to employ so many persons, possess their good-will and affection so extensively as he did."

This was true. He was much beloved by all in his employ, and most by them that had most frequent occasions of intercourse with him. His Overseers were strongly attached to him, and thought when he died that his place could not be filled. Had it been thought necessary to provide a man, in whom practical skill and science were combined in equal degree, as in Mr. Colburn, it would not have been easy. But, the same gentlemen Overseers, under the change of policy referred to, finding themselves in a very different relation to the Superintendent, and in a more agreeable and more advantageous position, it was natural that they should approve and even prefer the new state of things. And, equally natural was it that Mr. Colburn's very extraordinary qualifications for the situation which he filled, should have been less spoken of and less appreciated in the community at large. Had he lived, it cannot be doubted that his abilities and acquirements would have found no inconsiderable scope in his sphere as Superintendent. But, brief as his time was, his services were of signal advantage to the manufacturing interest. Several improvements of machinery in the spinning and weaving departments, which have proved to be of important and permanent utility, were introduced by him. In this position, he did not disappoint any reasonable expectation.

"The most of my intercourse with him," says Samuel Batchelder, Esq., now of Cambridge, but then sustaining a like position with Mr. Colburn, in the Hamilton Works, "was confined to the management of the manufacturing business, in which he was engaged during his residence at Lowell. His mathematical skill, and his knowledge of the principles of mechanics, gave him important advantages for the situation in which he was placed, and he was not less successful in his good judgment in the general management of business." Such, on this point, is the statement of one, than whom, probably no person living better knows, or is more reliable.

Previous to his removal to Lowell, it does not appear that his attention had been much directed to religious investigations; and, he was known to have had a decided distaste for religious controversy. The chief and absorbing religious discussion of his time, in Massachusetts, was that between the two extreme portions of the Congregationalists, the Trinitarian and the Unitarian, or, as they were called, the orthodox and the liberal. His tendencies were to the latter. When he began to study, and became in love of learning, his religious theory was, probably, little else than natural philosophy. In his Dissertation, at Commencement, he says, of the physical sciences: "No class of studies has done more to dispel the sombre clouds of superstition

which so long overshadowed the human intellect, and kept it groping in the darkness of ignorance and error; a darkness which sheltered fairies, witches, and thousands of malignant spirits, which afflicted and oppressed mankind; a darkness, in which the stars directed the destinies of men, and ruled them with resistless sway; a darkness, in which the Supreme Ruler of the Universe appeared only in his terrors, delighting in the miseries of his creatures, selfish and sordid in his views, capable of being appeased by vain ceremonies, and even with a price. The light which has beamed upon the world through the influence of philosophy has broken the spell by which they held the human intellect enslaved."

At the time of his removing to Lowell, there was but one congregation in the place, and that worshipping in the Episcopal form; and, to this most of the community then resorted. In the position which he occupied, the whole population of the village came more or less directly within the sphere of his influence. In these circumstances he perceived himself invested with a religious responsibility of serious extent and importance. He felt that the weight of his character and position must go into one scale or the other,—either for or against the religious interests of the people; that it was impossible for him to wield an influence that would be neutral in this regard; and, his ingenuous and comprehensive mind was at once made up as to the course which he consistently pursued. With the general reputation of the Episcopal church he was not unacquainted, with the Prayer Book he soon made himself familiar. In the discussions of his time, much use was made of the mysteries objected against the Trinitarian system, and he had himself felt the force of this popular argument. But, looking into the subject with his accustomed penetration, he soon perceived, and readily acknowledged, that no system of Theology, nor even of Philosophy, is free from mystery; and, that, in this respect, neither hypothesis had any advantage. And, in view of the authority of a Divine Inspiration, he determined to make the Bible the end of controversy, and to receive its revelations and its mysteries on the testimony of the sacred word.

Never having been baptized, his mind was exercised with characteristic ingenuousness and simplicity upon preparation for that solemn sacrament. After a very serious consideration, on Whit Sunday, June 3, 1827, he was baptized, in St. Anne's Church, publicly confessing his faith in Christ. He soon afterwards received the Lord's Supper, and was confirmed on the first subsequent opportunity. From that time he was a constant communicant, as he had been, and continued

to be a constant worshipper; never having been known to leave his chosen place of worship for the sake of attending on any other. He filled the office of Church Warden as assiduously as if he had no other engagement; and, in the absence of the Rector, repeatedly conducted the worship as a lay reader. His Christian character partook of the leading features of his mind. His religious affections were not subject to great excitements, for his mental operations were habitually slow and deliberate. They were strong, however, and deep, for his mind was strong and profound. Genuine simplicity is always amiable: when united with a vigorous and cultivated intellect, it is truly lovely; when found in connection with knowledge of the world and intercourse with men, it is as admirable as it is rare. Simplicity, under all these circumstances, was a marked and beautiful feature of his mind, and it pervaded his religion. His heart was open to religious influences, and his feelings were direct and truthful. They were not showy, for he was naturally reserved, even in departments wherein he excelled. His religious character was not wavering, because, having exercised his strong understanding in the simplicity of his heart, he acted conscientiously and consistently. His religion inclined to the cheerful, because the temperament of his mind was habitually so. The kindness of his natural disposition became benevolence in his religion, and induced him, in his quiet and unobtrusive way, "to set forward the salvation of all men" within his sphere of influence.

His cheerfulness in the social circle,—how he loved and enjoyed his select neighbors and friends in the familiar intercourse of evening recreations and readings at his own house, at theirs, will be remembered afresh by the yet living, who participated therein.

It was observed by his intimate friends that the labors and cares of 1833 were not sustained with quite his usual degree of physical vigor and elasticity. He was advised to take some relaxation, which he could scarcely be said to have done during his residence in Lowell. The summer was an inconvenient time for him to be absent, and he did not get away until the beginning of August. He then took a journey to New York and Philadelphia. But, his strength did not recruit. As he returned, on his way home, he was cold at times, and, when he alighted at his door, in the chill of the evening, from the stage which had brought him from Boston, August 23d, he went directly to his chamber, which he never left again. A fever, insidious and fatal, had seized upon him, and having run through a course of anxious fears, and trembling hopes, and assiduous attention, on the thirteenth of September, terminated his valuable life.

The next day there appeared, in a Lowell paper, of which the editor was Mr. J. Sleeper, afterwards of Boston, the following obituary:—

In this town, last evening, Warren Colburn, Esq., Superintendent of the Merrimack Manufacturing Company, aged 40 years.

Mr. Colburn graduated at Harvard, in 1820, and scrupulously fulfilled, through life, all the duties incumbent on him as a *man* and as a CHRISTIAN; and, his death will be severely felt, not only by his family, but by a numerous circle, to whom he was endeared by the ties of friendship and affection. It may be truly said of him that his mind was, intellectually and morally, of the *highest grade*. His labors to advance the cause of education are well-known to the world; and, his admirable treatises on Arithmetic and Algebra are acknowledged as standard works, and are introduced into almost all our schools and academies. Many important improvements in the machinery of our manufacturing establishments are the fruits of his scientific researches and ingenuity. Indeed, he was always devising plans to improve his fellow-citizens in knowledge and virtue. His heart was full of philanthrophy, and his study, through life, seemed to be to do good. But, he is taken away in the prime of his usefulness. His pilgrimage is now over, and he has reaped the reward of the blessed.

Mr. Colburn had been a resident in Lowell for nearly ten [about nine] years; and, always identified himself with the interests of the inhabitants. The loss of such a man makes a chasm in society; and, years may elapse before it will be closed.

The following appeared in the same paper, September 16th, the day of his interment, and is from the pen of the late Elisha Bartlett, M. D., then a distinguished citizen of Lowell:—

"Dust to dust, and ashes to ashes," is the perpetually impending sentence of the Creator upon his creatures. And, amid more than common gloom, is that sentence this day uttered over the remains of the lamented COLBURN. It is not our purpose to enter into a history of the life, or to indulge in anything like an elaborate consideration of the character of our departed townsman; for, we have neither the means nor the ability requisite to the performance of this melancholy, but delightful duty: neither, as we well-know, can any poor words of ours lighten the sorrow or break up the darkness which his death has shed over a bereaved and afflicted family. But, in the privilege of friendship, we indulge the last sad pleasure of leaving our simple memorial to the memory of one whom we knew, and loved, and have lost.

Mr. Colburn was, in its best and broadest meaning, a *great* and a *good* man. To no other individual, either among the dead or the living, has the cause of education in New England been more indebted than to him. His mind was thoroughly imbued with the best of all philanthropy, that which labors to make itself operative and practical,—which is felt not only by its possessor, but by all within the sphere of its influence. He not only desired the improvement and happiness of his species, but he set himself to work out that improvement, and to place its consequent happiness in their reach. He did not indulge in indolent and unproductive dreams about the perfectibility of man; but, while he yielded to none in the ardor with which he wished to witness this consummation, he also, which is far better, yielded to none in zealous endeavor for its accomplishment. To judge of a man's character with any thing like fairness, we must take into the estimate the circumstances by which it would be probably influenced. These, in the present case, so far as they can be so under our institutions, were untoward. Mr. Colburn was not born amid the shades of academic bowers, and neither the smiles of the opulent nor the patronage of the great greeted his entrance into life; yet, he won his way honorably to the high places of science, and sat down, a peer, among the benefactors of his race. He was self-made,—the sole architect of his fortune and fame.

From these qualities of the head, we turn to those better ones of the heart, which, after all, constituted the principal charm, and the crowning excellence of

Mr. Colburn's character. Like the habitual smile on his countenance, he had a serenity of soul which could have been the result only of high honor, sound principle, and genuine piety. His moral worth, like his mental power, was quiet and unobtrusive, and no man ever bore his honors more meekly than he. His religion was the fruit both of feeling and of thought, and it shed a constant and celestial light over the "daily beauty" of his life. Rarely has it been our lot to witness the elements of all excellencies so harmoniously mingled. He is taken from us in the "midst of his days," in the prime of his usefulness, and, as in our shortsightedness we are accustomed to say, prematurely. But, why prematurely? How fully and how nobly has he accomplished the highest purposes of our earthly existence, and although, when measured by the lapse of years, his life has been short; it has been long, if we estimate it as we should, by its fruits and its issues. He lived the happiest and the most enviable of all lives,—that of the CHRISTIAN PHILOSOPHER: he died the happiest and most enviable of all deaths,—that of the RIGHTEOUS. E. B.

The friends of the late Dr. Bartlett will recognize, in the above, the familiar and unmistakable features of his own mind and pen.

In a weekly religious paper, entitled the Observer, edited at the time by Rev. Mr. Rand, appeared the following, as editorial.

We are not used to the work of writing eulogiums upon the dead; but, our feelings instinctively urge us to say something respecting the man whose name is at the head of this article.

Warren Colburn, taken all in all, was a most wonderful man. There was in him a combination of qualities which rendered him a friend to all, and which commanded the love of all. His was not a life of inaction. He lived to some purpose. With a constitution little fitted to the rough and stormy scenes of life, he set himself to work in his own appropriate sphere, and no man ever accomplished more. We have understood that Mr. Colburn's early life was not spent, as we should conjecture, from his attainments, amidst all the advantages of schools and academies; but, that he labored amidst great disadvantages in these respects. He was strictly a self made man. His efforts were well directed and efficient in respect to the improvement of the young. His Arithmetic introduced a new era in the history of that science, and opened the way for the numerous systems which have since been raised upon his superstructure.

His series of reading books have been also extensively adopted in all our schools, and are well adapted to secure the interest and profit of the schools.

He was an agent of the Merrimack Manufacturing Company in this place; which has sustained, in his death, an almost irreparable loss.

His attainments were great in all the branches of Mathematics and general science, and the cause of education through the country owes to his influence much of its present prosperity.

His disposition was amiable, and his hand was extended to all, without distinction, who claimed his friendship. He always appeared smiling and cheerful, and we are assured that he scarcely ever seemed less cheerful at his own fireside than in public.

Such was Warren Colburn, in his *scientific* and *social* qualities; but, from what we have seen and heard we should presume that his *heart* was impressed with the importance of deep and fervent piety. If we are not mistaken in this, Mr. Colburn presented a singular instance of a mind bent upon literary attainments, and yet deeply imbued with a spirit of religion. We would that all our men of learning were as sensible of their own mortality, and of the need of a preparation for the future life, as he was.

But, he is gone. His remains are with us; his immortal spirit has, we trust, gone to expand its powers, and to make more lofty flights in a purer and holier atmosphere. He has built his own monument, and it will stand longer than the mementos which other men can raise to perpetuate his virtues. The breaches which God thus makes, he alone can repair. Let us look to him in all our affliction, as he possesses the sources of consolations.

These articles, occasioned by the event of his death, serve to give expression of the prevalent feeling as pervading different portions of the community at the time of his departure. He was interred in Lowell; but, his body was afterwards removed to Mount Auburn, where a modest and durable monument was placed by his literary friends over his grave, with a simple inscription.

There will be added a few general impressions from the reminiscences of surviving friends, as more recently expressed.

"There are few men," says his friend, Mr. Batchelder, "who, in so short and quiet a life, have done so much good, and rendered their name so familiar. I remember, many years ago, on visiting, with him, a school in New Hampshire, on the invitation of the instructors and others interested in the school, that when I introduced him to one of the Trustees of the Institution, he manifested much surprize at his youthful appearance, and asked, 'Is this Mr. Colburn, the Mathematician?' remarking that, having heard so much of him, and of the good he had done in the world, he expected to see a man with gray hairs and bent with age."

His friend, Mr. Sherwin, says:—

Mr. Colburn was remarkable for simplicity of manners and character, sincerity, a high regard for truth, and an amiableness which endeared him to all his acquaintances.

James Hayward, Esq., says:—

Mr. Colburn was a modest unobtrusive man. I was first attracted by his scientific tendencies and tastes. I then sought his further acquaintance. I was struck with the strength and clearness of his mind, and the tendency of his inquiries to the practical and the useful. And, I was charmed with his simplicity and directness, his perfect truthfulness and honesty of thought and purpose. He was a man in whom there was no guile. His simplicity and directness were seen in all his pursuits; as well in his business as in his scientific inquiries, and his intercourse with society. In all, he was a man *in earnest*. I remember that I early got these impressions of him, and used to embrace every convenient opportunity of being in his society. His love of science made his society both entertaining and instructive, and the simplicity and benignity of his character made it absolutely charming. I reckon it among the peculiar blessings of my life, that I have been permitted to enjoy the acquaintance and friendship of such a man. The tendency of his mind was to scientific accuracy; and, he exercised it in the higher subjects of philosophical inquiry. His attainments in analytical mathematics were eminent; and, it is known that, in his leisure from business, he applied himself to the solution of some of the most difficult problems in astronomical science. But, the tendency of his mind was, as I have said, to the practical in knowledge. His study was to simplify science,—to make it accessible to common minds; and, in my opinion, his elementary books are instances of great success in this way; especially the "First Lessons in Arithmetic." I hold in great admiration Mr. Colburn's character as a student in science, a practical philosopher, a man, and a Christian. These are the impressions which he made on me; and, the lapse of more than twenty years has not tended to efface them.

James A. Treat, Esq., of Pittsfield, N. H., says:—

When I left Cambridge, 1832, I went into Mr. Colburn's counting-room, and remained there until his summons came. While in his counting-room, I became better acquainted. I there began to appreciate the good and noble qualities of his character. There, with others, I was irresistibly drawn to love and respect him. There I learned to admire his uniform urbanity, his pleasant look, his kind word, in giving directions or advice. Even in giving admonition, if necessary, his kindness was seen and felt.

In my mind's eye, I can now see him at his office. I can see his mild and

placid countenance, at his pleasant home. I can see him at the lecture room; giving instruction,—laboring hard and long for the good of his fellow-citizens. I can see his overseers, his operatives, his clerks, all having but one universal love and regard for him while living,—having but one universal tear at his departure. The eye of faith can now see him engaged in more exalted duties, and reaping a higher reward.

In personal appearance, Mr. Colburn was decidedly pleasing. His height was five feet ten, and his figure well proportioned. His face was one not to be forgotten. Persons have often been heard to say, were they artists, they could portray his countenance correctly. Dr. Furness, in his college reminiscence, says: "We used to admire Colburn's grand large eye." The distinguishing features of his face were his eyes and his mouth; both indicating the sweetness of his disposition, his benevolence, intelligence, and refinement. His manner was often abstracted, indicating intense thought; but, when his attention was called to persons and things about him, it was always with a countenance beaming with love and benevolence. The Rev. S. B. Babcock, of Dedham, gives the following anecdote: "I was a guest at his table, many years since, and he sat down to dinner in a silent, meditative mood, scarcely noticing his guests or his household. I supposed him rather destitute of conversational powers, and contented myself with looking upon, without listening to, the distinguished mathematician. About mid-dinner he suddenly exclaimed, 'I see it now: I think it will work.' He soon informed us he had been inspecting a rotary fire engine; but, did not quite understand the scientific principle. When his mind was at rest, he displayed colloquial powers highly gratifying and instructive."

Of his hesitancy of speech, his friends were not so much aware as a stranger might be. He was not fluent in conversation; neither was there any physical impediment. He used to say that he did not write easily, and attributed it to his want of early practice. Perhaps the hesitancy, which some observed, may have arisen from the like cause. In conversation, he was always desirous of using the most correct and expressive language, and endeavored to select the best words. In choosing his words, there was sometimes observable a slight wavering.

His disposition was remarkable for its evenness and serenity. Though possessed of great sensibility and feeling, he was never elated or depressed, but always cheerful.

The lapse of time has taken largely from the number of Mr. Colburn's acquaintances and friends, and has buried in oblivion much that should have been seasonably recorded. One of the most intimate of his friends, James G. Carter, Esq., survived him about sixteen years; and, in June, 1849, writing to Mrs. Colburn, relative to some

letters, &c., says: "You must find, or must have found, in looking over Mr. Colburn's papers, many more letters of mine, if they were preserved. They were not, probably, of much value, except as a transcript of my heart at the time: for, *no man* ever drew out my heart as did Warren Colburn. No one has ever filled the aching void made by his loss.

If I can aid you about it, [a small matter of business,] I shall be most happy to do so when I return from Michigan, whither I expect to go, with Mrs. Carter and Ann Eliza, next week. [He went on this projected journey, and never returned; but, died in Chicago, a few weeks after the date of this letter. He goes on to say,] So I cannot see you till I return. Then, why will you not come up to see us, and bring your daughters. Mary looks like her father; and, when I think of the long, unbroken friendship that existed between Mr. Colburn and myself, I cannot bear to have his children grow up without knowing them. Warren came to see me once or twice while he was stationed at Shirley, on the Fitchburg road; and, I once went over on purpose to see him, but he was off at some other post on his line of operations, and that closed my acquaintance with him. I have often inquired about him, and always hear of him as being a good character, and giving promise of distinction in his profession.

Our habits, pursuits, and associations may have led us far asunder; but, I always revert to my acquaintance with you and Mr. Colburn, with the greatest satisfaction, and often feel quite sad that such pleasant reminiscences should fade away without a stronger effort to revive and perpetuate them."

To revive and perpetuate the fast fading reminiscences of one so widely yet so little known, has been the purpose of this desultory article. If its perusal should awaken in the mind of any reader further recollections of one so deserving of remembrance, it is hoped they too may be put on record for preservation, in order so to increase the stock of material that some more skillful hand may weave these gathered shreds into a Memoir, worthy of the name and character of WARREN COLBURN.

3 2044 029 885 209